07-17-02

UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor

Baowei KANG et al.

Appln. No.

10/017,734

Filed

: December 7, 2001

Title

POWER SEMICONDUCTOR SWITCHING

DEVICES WITH LOW POWER LOSS AND

METHOD FOR FABRICATING THE

SAME

Docket No.

B784.312-1

Examiner: M. L. Tran

Group Art Unit

AMENDMENT

Box Non-Fee Amendment Assistant Commissioner for Patents Washington, D.C. 20231 SENT VIA EXPRESS MAIL

Express Mail No.: EV 030212967 US

Sir:

This is in response to the Office Action mailed on June 14, 2002. Please amend the above-identified application as follows:

IN THE CLAIMS

Please amend claims 2-5 (marked up version attached in Appendix), such that pending claims 1-7 are as follows:

1. A low-power-loss power semiconductor switching device comprising an n-type base, a backside p⁺ emitter and general frontside structure including a cathode and a gate, wherein said switching device includes a combination of an ultra thin and lightly-doped backside p⁺ emitter formed by ion implanting and a nonuniformly doped n-type base which contains a residual layer of a priorly-diffused n⁺ layer on one side of the device.

al.